

In the Claims

Please amend the claims as follows:

44. (Currently Amended) A method of manufacturing an epitaxial silicon wafer substrate comprising:

Setting an upper limit that is defined by a straight line connecting a point at which a nitrogen concentration in a silicon ingot is 3×10^{15} atoms/cm³ when an oxygen concentration in the silicon ingot is 7×10^{17} atoms/cm³ and a point at which the nitrogen concentration is 3×10^{14} atoms/cm³ when the oxygen concentration is 1.6×10^{18} atoms/cm³ within a concentration range where the oxygen concentration and the nitrogen concentration are plotted along the horizontal axis and the vertical axis, and also setting a lower limit of the amount of added nitrogen, which is a function of an initial oxygen concentration of a silicon wafer substrate for ensuring a sufficient density of oxygen precipitates as gettering sites;

controlling ~~an~~ the oxygen concentration in accordance with a change in ~~a~~ the nitrogen concentration based on a characteristic that the nitrogen concentration increases from a shoulder portion to a tail portion of ~~a~~ the silicon ingot, so that the oxygen concentration and the nitrogen concentration fall within ~~a~~ the upper limit and the lower limit concentration range where an upper limit is defined by a line connecting a point at which the nitrogen concentration is 3×10^{15} atoms/cm³ when the oxygen concentration is 7×10^{17} atoms/cm³ and a point at which the nitrogen concentration is 3×10^{14} atoms/cm³ when the oxygen concentration is 1.6×10^{18} atoms/cm³ within the concentration range where the oxygen concentration and the nitrogen concentration are plotted along the horizontal axis and the vertical axis at the same time when the silicon ingot is pulled up from a silicon raw material melt doped with nitrogen so that the nitrogen concentration at the tail portion of the silicon

ingot is less than 3×10^{15} atoms/cm³;

Obtaining the silicon wafer substrate by slicing the pulled-up silicon ingot; and mirror polishing the obtained silicon wafer substrate; and then immediately after the step of mirror polishing, subjecting the obtained silicon wafer substrate to epitaxial growth processing.